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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,537	04/19/2004	Harri Valio	915-007.088	3886

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EXAMINER

HA, DAC V

ART UNIT	PAPER NUMBER
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2611

MAIL DATE	DELIVERY MODE
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05/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/828,537

Applicant(s)

VALIO ET AL.

Examiner

Dac V. Ha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-4, 7-10, 12-17, 20** are rejected under 35 U.S.C. 102(b) as being anticipated by Kawasaki (US 5,329,549).

Regarding claim 1, Kawasaki discloses all claimed subject matter

“storing signal samples of said at least one received code modulated signal with a first rate in a memory” (Abstract; Fig. 1, elements 30, 31; col. 6, lines 1-47; col. 8, line 65 to col. 10, line 2”;

“reading stored signal samples with a second rate from said memory for determining a correlation between said read signal samples and samples of said at least one available replica code, wherein said second rate is higher than said first rate” (Fig. 1, elements 30, 31; col. 6, lines 1-47; col. 8, line 65 to col. 10, line 2; Fig. 1, correlators; col. 6, line 48 to col. 7, line 26).

Regarding claims 2, 7, 12, 16, 20, see claim 1.

Regarding claim 3, Kawasaki further discloses “wherein determining a correlation comprises a coherent integration, and wherein said memory stores samples for up to at least one integration period of said coherent integration” in col. 6, lines 48-60; col. 7, lines 3-8.

Regarding claims 8, 13, 17, see claim 3 above.

Regarding claim 4, Kawasaki further discloses "wherein signal samples are only read from said memory when signal samples for at least one integration period of said coherent integration have been stored in said memory" in col. 6, lines 48-60; col. 7, lines 3-8 (Note: Kawasaki only discloses coherent integration).

Regarding claims 9, 14, see claim 4 above.

Regarding claim 10, Kawasaki further discloses "wherein said memory is a sample memory" in col. 6., lines 20-26.

Regarding claim 15, see claim 10 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 5,, 6, 11, 18-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki.

Regarding claim 5, see claim 1 above. Further, Kawasaki discloses "compensating in said extracted samples sequentially various possible Doppler frequencies" in 4, lines 20-55. Kasasaki differs from the claimed invention in that Kasasaki doesn't disclose the use "a matched filter". However, correlator implementing

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either matched filter or correlator is well-known in the art for obtaining correlation.

Therefore, such claimed subject matter would have been easily realized by one skilled in the art.

Regarding claim 6, see claim 4 above.

Regarding claim 11, the claimed subject matter "wherein said electronic device is a mobile terminal" would have been easily realized by one skilled in the art of communication.

Regarding claims 18-19, these claimed subject matter would have been obvious to one skilled in the art based on Kawasaki's GPS system.

Claim Objections

5. **Claims 2-6** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1 recites all the claimed subject matter in claim 2.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. **Claims 5-6** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. **Claim 5** recites the limitation "said extracted samples" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Best (US 7,061,972).

Tiemann et al. (US 6,028,883).

Lennen (US 6,888,879).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-272-3040. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Dac V. Ha', with a long horizontal flourish extending to the right.

Dac V. Ha
Primary Examiner
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